Report Date: 28 Feb 2022

081-WY8-1009
Process Allergen Extracts in an Aseptic Environment
Status: Approved

Security Classification: U - Unclassified

Distribution Restriction: Approved for public release; distribution is unlimited.

Destruction Notice: None

Foreign Disclosure: FD1 - This training product has been reviewed by the training developers in coordination with the Joint Base San Antonio, Fort Sam Houston/US Army Medical Center of Excellence foreign disclosure officer. This training product can be used to instruct international military students from all approved countries without restrictions.

Conditions: You are a health care specialist and have received a providers order to give a patient an allergy immunotherapy injection. You will need syringes, needles, 0.2 micron filters, graduated cylinders, adhesive seals, thermometers, incubators, prescription Standard Form (SF) 559, Medical Record- Allergen Extract Prescription, New and Refill or Department of Defense (DD) Form 2482, Venom Extract Prescription, local standing operating procedures (SOPs), extracts (e.g. grasses/trees, honey bees), and diluents (e.g. glycerin, phenol saline). This task should not be trained in MOPP 4.

Standards: Process Allergen Extracts in an Aseptic Environment, with 100% compliant, while utilizing the GO & NO-GO criteria, In Accordance With (IAW) AR 40-562, Immunizations and Chemoprophlaxis for the Prevetntion of Infectious Deseases.

Special Conditions: None

Safety Risk: Low

MOPP 4: Never

Task Statements

Cue: None

DANGER

None

WARNING

None

CAUTION

None

Remarks: None

Notes: For non-APD references contact your training NCO and or check with the MOS library.

Performance Steps

1. Label the empty sterile 20 milliliters (mL) vials with the date the challenge is performed and the initials of the person performing the procedure.

   a. Label three of the vials “Control 1”, “Control 2” and “Control 3”.

   b. Label the remaining six vials with the numbers “1” through “6”.

2. In an area outside of the workbench or isolator, remove the cap from the Tryptic Soy Broth powder bottle by unscrewing it.

3. Prepare a 3% solution of non-sterile Tryptic Soy Broth by adding 100ml of water (non-bacteriostatic) to the bottle containing 3 grams (gm) of powder.

4. Replace the cap and tighten it.
   Note: Ensure that all of the powder is dissolved before proceeding.

5. Invert the bottle several times to mix.

6. Take the prepared non-sterile broth to the workbench or isolator.

7. Withdraw 25mL of the broth using a 30mL sterile syringe.

8. Transfer 5mL of the broth to the vial labeled as “Control 1”.

9. Remove the needle from the syringe and using aseptic technique, affix a sterile 0.2 micron porosity filter unit and a 20-gauge needle to the syringe

10. Inject 10mL from the syringe into the vial labeled “1”.

11. Inject another 10mL into the vial labeled “2”.

12. Remove the filter unit and needle.

    a. Withdraw another 25mL of the non-sterile Tryptic Soy Broth.

    b. Transfer 5mL of the broth to the vial labeled as “Control 2”.

13. Repeat steps 5 and 6 using vials “3” and “4”.

14. Remove the filter unit and needle.

15. Withdraw another 25mL of the non-sterile Tryptic Soy Broth.

16. Transfer 5mL of the broth to the vial labeled as “Control 3”.

17. Repeat steps 5 and 6 using vials labeled “5” and “6”.

18. Apply sterile adhesive seals to the rubber closures of the nine vials.

19. Place all nine vials in a Whirl-Pak bag for transport to the incubator.

20. Incubate the vials at 20 to 35°Centigrade (C) for 14 days.
    Note: Growth may not be evenly dispersed throughout the vial. Tap or swirl the vial to observe for growth that may have settled at the bottom. (If growth is observed the vial may be discarded. Do not continue to incubate for the full 14 days.)

21. Examine every few days for the presence of turbidity or growth of bacteria.

22. Record results on the “Results Log Sheet”.

23. Discard all used syringes, needles, filters and completed test vials as biomedical waste.
    Note: See task 081-WY8-2016 Prepare (10) Ten-fold dilutions from full strength extracts.

(Asterisks indicates a leader performance step.)

Evaluation Guidance: Score each Soldier according to the performance measures in the evaluation guide. Unless otherwise stated in the task summary, the Soldier must pass all performance measures to be scored GO. If the Soldier fails any step, show what was done wrong and how to do it correctly.

Evaluation Preparation: You must evaluate the Soldier on their performance of this task in an operational condition related to the actual task.

PERFORMANCE MEASURES	GO	NO-GO	N/A
1. Labeled the empty sterile 20 milliliters (mL) vials with the date the challenge is performed and the initials of the person performing the procedure.			
2. In an area outside of the workbench or isolator, removed the cap from the Tryptic Soy Broth powder bottle by unscrewing it.			
3. Prepared a 3% solution of non-sterile Tryptic Soy Broth by adding 100ml of water (non-bacteriostatic) to the bottle containing 3 grams (gm) of powder.			
4. Replaced the cap and tighten it.			
5. Inverted the bottle several times to mix.			
6. Took the prepared non-sterile broth to the workbench or isolator.			
7. Withdrew 25mL of the broth using a 30mL sterile syringe.			
8. Transfered 5mL of the broth to the vial labeled as “Control 1”.			
9. Removed the needle from the syringe and using aseptic technique, affix a sterile 0.2 micron porosity filter unit and a 20-gauge needle to the syringe			
10. Injected 10mL from the syringe into the vial labeled “1”.			
11. Injected another 10mL into the vial labeled “2”.			
12. Removed the filter unit and needle.			
13. Repeated steps 5 and 6 using vials “3” and “4”.			
14. Removed the filter unit and needle.			
15. Withdrew another 25mL of the non-sterile Tryptic Soy Broth.			
16. Transfered 5mL of the broth to the vial labeled as “Control 3”.			
17. Repeated steps 5 and 6 using vials labeled “5” and “6”.			
18. Applied sterile adhesive seals to the rubber closures of the nine vials.			
19. Placed all nine vials in a Whirl-Pak bag for transport to the incubator.			
20. Incubated the vials at 20 to 35°Centigrade (C) for 14 days.			
21. Examined every few days for the presence of turbidity or growth of bacteria.			
22. Recorded results on the “Results Log Sheet”.			
23. Discarded all used syringes, needles, filters and completed test vials as biomedical waste.			

Supporting Reference(s):

Step Number	Reference ID	Reference Name	Required	Primary	Source Information
	DD FORM 2482	Venom Extract Prescription	Yes	No	
	AR 40-562	Immunizations and Chemoprophylaxis for the Prevention of Infectious Diseases	Yes	Yes	
	AR 40-66	Medical Record Administration and Health Care Documentation	Yes	No	
	SF FORM 559	Medical Record-Allergen Extract Prescription, New and Refill	Yes	No	

TADSS : None

Equipment Items (LIN): None

Materiel Items (NSN) :

Step ID	NSN	LIN	Title	Qty
	6685-00-133-7625		THERMOMETER	1
	6515-01-N01-3300		Tamper Resistant Adhesive Seals	1
	6640-01-V01-1158		Vials 20 ml	9
	6515-01-395-0780		CO2 Regulator, to Retrofit CO2 Incubators (DEPMEDS) without Regulator	1
	6640-01-C72-2502		INCUBATOR	1
	6550-01-D05-2233		Diluents (e.g. glycerin, phenol saline)	1
	6550-01-B07-3140		TRYPTIC SOY BROTH POWDER	1
	5110-01-F02-0002		Micron filters	1
	6515-01-G12-0022		Extracts (e.g.grasses/trees, honey bees)	1
	TBD-122		SYRINGES (GC)	1
	6640-01-371-9660		Needles, Inoculating, Plastic, Black, Disposable; for use in Microbiology Procedures	1
	6630-NCM990749		GRADUATED CYLINDER (100 ML)	1
	6640-01-W01-8089		Whirl-pak bag	1

Environment: Environmental protection is not just the law but the right thing to do. It is a continual process and starts with deliberate planning. Always be alert to ways to protect our environment during training and missions. In doing so, you will contribute to the sustainment of our training resources while protecting people and the environment from harmful effects. Refer to the current Environmental Considerations manual and the current GTA Environmental-related Risk Assessment card.

Safety: In a training environment, leaders must perform a risk assessment in accordance with current Risk Management Doctrine. Leaders will complete the current Deliberate Risk Assessment Worksheet in accordance with the TRADOC Safety Officer during the planning and completion of each task and sub-task by assessing mission, enemy, terrain and weather, troops and support available-time available and civil considerations, (METT-TC). Note: During MOPP training, leaders must ensure personnel are monitored for potential heat injury. Local policies and procedures must be followed during times of increased heat category in order to avoid heat related injury. Consider the MOPP work/rest cycles and water replacement guidelines IAW current CBRN doctrine.

Prerequisite Individual Tasks : None

Supporting Individual Tasks : None

Supported Individual Tasks : None

Supported Collective Tasks : None

Knowledges :

Knowledge ID	Knowledge Name
K8136	Understanding of the principles of aseptic technique and infection control.
K23326	Knowledge of the factors that affect susceptibility to disease, allergic reactions, and immunodeficiency
081-SR-68P-R249	Knowledge of principles of aseptic technique

Skills :

Skill ID	Skill Name
081-VC-68T-SK0150	Injection techniques.
081-VC-68T-SK0247	Preparation of injection site.

ICTL Data : None